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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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Kil-soo Jung

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North Star Intellectual Property Law, PC

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EXAMINER

CHIO, TAT CHI

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**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/647,445	<b>Applicant(s)</b> JUNG ET AL.	
	<b>Examiner</b> TAT CHIO	<b>Art Unit</b> 2621	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 25 August 2009.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1,3-9 and 11-21 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1,3-9 and 11-21 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)          | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)          | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____  | 6) <input type="checkbox"/> Other: _____                          |

## **DETAILED ACTION**

### ***Response to Arguments***

1. Applicant's arguments with respect to claims 1, 3-9, and 11-21 have been considered but are moot in view of the new ground(s) of rejection.

Applicant argues that Lamkin does not teach the prohibiting occurs when a second event occurs using second event information recorded in the markup document.

In response, the examiner respectfully disagrees. Lamkin teaches that the navigation buttons, up, left, right, and down, in one embodiment, do not work for DVD navigation unless video is playing a full-screen mode. The examiner deems that "when video is not playing a full-screen mode" is a second event. Therefore, when the video is not playing a full-screen mode (second event), the navigation buttons do not work and therefore, the key input event will not be informed to the AV playback engine by the ENAV engine based on the second event.

### ***Claim Rejections - 35 USC § 101***

2. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

Claims 1, 3-9, 11, and 12 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory matter as follows. Claims 1, 3-9, 11, and 12 define a recording medium embodying functional descriptive material. However, the claimed recording medium can be broadly interpreted to encompass non-statutory subject matter such as "signal", "carrier wave", or "transmission medium". A "signal" embodying functional descriptive material is neither a process nor a product (i.e., a tangible "thing")

and therefore does not fall within one of the four statutory classes of 35 U.S.C. 101.

Rather, "signal" is a form of energy, in the absence of any physical structure or tangible material.

Because the full scope of the claim as properly read in light of the disclosure encompasses non-statutory subject matter, the claim as a whole is non-statutory. The examiner suggests amending the claim to include the disclosed non-transitory recording medium, while at the same time excluding the transitory recording medium such as signals, carrier waves, etc. Any amendment to the claim should be commensurate with its corresponding disclosure.

***Claim Rejections - 35 USC § 103***

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 1, 3-9, 11, and 12-21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lamkin et al. (US 7,178,106 B2) in view of Otsuka et al. (US 2003/0044171 A1).

**Consider claims 1 and 12,** Lamkin et al. teach a computer-readable information storage medium comprising: AV data (Fig. 7); and a markup document utilized to reproduce the AV data in an interactive mode, wherein the markup document comprises first event information that, when read by an ENAV engine, causes the ENAV engine to inform, by default, an AV playback engine, which plays back the AV data, of

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an occurrence of a key input event corresponding to a user action (col. 19, lines 44-47), and second event information that, when read by an ENAV engine, causes the ENAV engine to prohibit informing the AV playback engine, which decodes the AV data, of the occurrence of the key input event (Table A.1.41 and col. 19, lines 51-54); and wherein the first event information comprises event registration information to check whether the user performed the action and event handling information to handle the event by controlling an operation of the AV playback engine when the key input event occurs (Table A.1.41). However, Lamkin does not explicitly teach the first event information and the second event information are read by the ENAV engine when the AV data is reproduced in the interactive mode comprising the full mode and the embedded mode.

Otsuka teaches the first event information and the second event information are read by the ENAV engine when the AV data is reproduced in the interactive mode comprising the full mode and the embedded mode (Fig. 3). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the disabling feature to prevent user to change mode of operation.

**Consider claim 3**, Lamkin et al. teach the computer-readable information storage medium, wherein the event registration information is recorded using an on-click event defined in the markup document, and the event handling information is created by a function that allows the AV playback engine to perform an operation corresponding to the on-click event (col. 8, lines 46-59).

**Consider claim 4**, Lamkin et al. teach the computer-readable information storage medium of claim 2, wherein the event registration information is recorded using a key input event listener to check whether the key input event occurs, and the event handling information is recorded using a key input event handler to control the operation of the AV playback engine (col. 8, lines 46-59 and Table A.1.41).

**Consider claim 5**, Lamkin et al. teach the computer-readable information storage medium, wherein the AV playback engine is informed of the occurrence of the key input event via an ENAV engine that interprets and executes the markup document (col. 11, lines 56-67 and col. 12, lines 1-15).

**Consider claim 6**, Lamkin et al. teach the computer-readable information storage medium, wherein the AV playback engine is informed of the occurrence of the key input event via an interface handler in an ENAV engine that interprets and executes the markup document (702 and 704 of Fig. 7).

**Consider claim 7**, Lamkin et al. teach the computer-readable information storage medium, wherein the interface handler transmits a playback control command to implement a predetermined operation of the AV playback engine corresponding to the key input event (col. 19, lines 44-47).

**Consider claim 8**, Lamkin et al. teach the computer-readable information storage medium, wherein the first event information is written using at least one of script language and markup language (col. 19, lines 44-47).

**Consider claim 9**, Lamkin et al. teach the computer-readable information storage medium, wherein the first event information is written using at least one of JavaScript language and XML language (740 of Fig. 7).

**Consider claim 11**, Lamkin et al. teach the computer-readable information storage medium, wherein the second event information is recorded using an Application Program Interface (API) (col. 11, lines 56-67 and col. 12, lines 1-15).

**Consider claim 13**, Lamkin teaches a method of handling a user input in an interactive mode a full mode and an embedded mode in which played back AV data is displayed with a markup document, the method comprising: when a key input event corresponding to a user action occurs, informing an ENAV engine, which interprets and executes the markup document, of the occurrence of the key input event (742, 410, 702, 704, 706, 708, 710, 712, 714, and 716 of Fig. 7); informing, by default, by the ENAV engine, an AV playback engine, which plays back the AV data, of the occurrence of the key input event (422, 426, and 734 of Fig. 7); and prohibiting, when a second event occurs using second event information recorded in the markup document, the AV playback engine from being informed of the occurrence of the key input event (col. 19, lines 44-47 and lines 51-54); wherein the informing of the ENAV engine of the occurrence of the key input event comprises creating the key input event using the first event information recorded in the markup document (col. 11, lines 56-66), the informing of the AV playback engine of the occurrence of the key input event comprises transmitting a playback control command corresponding to the key input event to the AV playback engine to the handle the key input event (col. 10, lines 4-8), and the markup

document includes event registration information to check whether the user performed the user action (Table A.1.41); the first event information and the second event information are read by the ENAV engine when the AV data is reproduced in the interactive mode comprising the full mode and the embedded mode (Fig. 3 of Otsuka).

**Consider claim 14**, Lamkin teaches the method, wherein: the informing of the ENAV engine of the occurrence of the key input event comprises creating the key input event using an onclick event that occurs by clicking on a button made in the markup document, the onclick event being the first event information recorded in the markup document (col. 11, lines 56-66), and the informing of the AV playback engine of the key input event comprises transmitting a playback control command corresponding to the onclick event to the AV playback engine to handle the onclick event (col. 10, lines 4-8).

**Consider claim 15**, Lamkin teaches the method, wherein: the prohibiting comprises creating the second event according to the second event information which is recorded using an Application Program Interface (API) (Table A.1.41).

**Consider claim 16**, Lamkin teaches the method further comprising: controlling the markup picture in correspondence with a third event which occurs according to a third event information recorded in the markup document (col. 19, lines 58-59).

**Consider claim 17**, Lamkin teaches an apparatus to reproduce AV data in an interactive mode comprising a full mode and an embedded mode, the apparatus comprising: an AV playback engine that plays back the AV data (422, 426 and 734 of Fig. 7); and an ENAV engine that interprets and executes a markup document (742, 410, 702, 704, 706, 708, 701, 712, 714, and 716 of Fig. 7); wherein, when a key input



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event corresponding to a user action occurs, the ENAV engine informs, by default, the AV playback engine of the occurrence of the key input event, and allows the key input event to occur using first event information written in the markup document (col. 19, lines 44-47), which includes event registration information to check whether the user performed the action (Table A.1.41); and wherein, when a second event occurs, the ENAV engine refrains from informing the AV playback engine of the occurrence of the key input event based on second event information recorded in the markup document (col. 19, lines 51-53); the first event information and the second event information are read by the ENAV engine when the AV data is reproduced in the interactive mode comprising the full mode and the embedded mode (Fig. 3 of Otsuka).

**Consider claim 18**, Lamkin teaches the apparatus, wherein the ENAV engine generates an API command to control the AV playback engine, in response to the key input event corresponding to the user action (col. 11, lines 55-66).

**Consider claim 19**, Lamkin teaches the apparatus, wherein, when the key input event occurs using the first event information, the ENAV engine transmits a playback control command corresponding to the key input event to the AV playback engine to handle the key input event (col. 11, lines 54-67 and col. 12, lines 1-15).

**Consider claim 20**, Lamkin teaches the apparatus, wherein when an onclick event occurs using the first event information, the ENAV engine transmits a playback control command corresponding to the onclick event to the AV playback engine to handle the onclick event (col. 19, lines 44-47).

**Consider claim 21**, Lamkin teaches the apparatus, wherein the ENAV engine comprises an interface handler that informs the AV playback engine of the occurrence of the key input event (702 of Fig. 7).

### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to TAT CHIO whose telephone number is (571)272-9563. The examiner can normally be reached on Monday - Thursday 9:00 AM-5:00 PM EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Thai Q. Tran can be reached on 571-272-7382. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/T. C. C./  
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**/Thai Tran/**

**Supervisory Patent Examiner, Art Unit 2621**